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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,781	04/17/2001	Michael P. Whitman	11443/45	6776

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KENYON & KENYON  
ONE BROADWAY  
NEW YORK, NY 10004

EXAMINER

TRAN, LOUIS B

ART UNIT	PAPER NUMBER
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3721

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/836,781		WHITMAN ET AL. <span style="float: right;">OK</span>	
	<b>Examiner</b>		<b>Art Unit</b>	
	Louis B Tran		3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 November 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☒ Claim(s) 11 and 42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6, 8, 11</u> | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: Page 25, line 14 of the specification describes Figure 9a as a second embodiment where 9a was already described as a first embodiment above.

Appropriate correction is required.

### ***Election/Restrictions***

2. Applicant's election of Species II in Paper No. 10 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

It is noted that applicant has selected claims 1-44 to correspond to Figures 9b and 9c, Species II. Examiner strongly contends that claims 1-32 require a memory unit that is, in fact, completely absent in Figures 9b and 9c, of elected species II, and claims 33-44. However, for the purposes of expediency, the below office action addresses all claims as elected.

### ***Claim Objections***

3. Claim 11 is objected to because of the following informalities: Line 2 of claim 11 states the limitation "a least one". It is assumed that this is a typographical error.
- Appropriate correction is required.

4. Claim 42 is objected to because of the following informalities: Line 3 of claim 42 states the limitation "an the at least". It is assumed that this is a typographical error. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4, 7-9, 15, 16, 19-21, 26, 29-31, 37, 40, 41, and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 7-9, 19-21, 29-31, 37, 41 and 44 it is unclear if the limitation "stapler/cutter" and "driver/cutter" is intended to mean stapler and cutter, driver and cutter, stapler or cutter, driver or cutter, or all the above. Correction is required.

Claim 4, 15, and 26 recites the limitation "the first data" in line 1 of each claim. There is insufficient antecedent basis for this limitation in the claim. The first data implies that there is a second data and there is no reference to a first data in the previous claims.

Claim 40 cites the recitation, "attachment detachably attachable". This is indefinite and redundant. Correction is required.

Claim 44 recites the limitation "the second gear arrangement" in line 2 of claim 44. There is insufficient antecedent basis for this limitation in the claim. There is no reference to a second gear arrangement in claim 33.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 4-6, 10, 12, 15-18, 23, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al. (5,383,874) in view of Denen et al. (5,400,267).

With respect to claims 1, 12, and 23, Jackson et al. anticipates the use of a surgical instrument for use with an electro-mechanical surgical device comprising a coupling configured to couple the surgical instrument with the electromechanical surgical device and a memory unit 88 configured to store data representing at least one parameter, data representing a usage, a serial number relating to the surgical instrument (as in claim 1, 12, and 23), wherein the first data is readable by a control system 76 of the electro-mechanical surgical device as in column 6, line 24 (as in claim 4, 15, and 26), wherein the at least one parameter includes at least one of a usage data as in column 8, lines 60-65, a serial number data and a type of the surgical instrument as in column 8, line 62 (as in claim 10), wherein the control system is configured to limit usage of the surgical instrument in accordance with the usage data as in column 9, lines 13-30 (as in claim 16), but does not explicitly show wherein the

coupling includes a data connector configured to connect the memory unit with the electro-mechanical surgical device.

Jackson et al. has assumed a data connection is available to transfer information from a memory unit to a surgical device. However, to further show the well-known and common use of data connectors in the surgical art, Denen et al. teaches the use of wherein a coupling 14 includes a data connector configured to connect the memory unit with the electro-mechanical surgical device (as in claim 1), wherein the data connector is configured to electrically and logically connect the memory unit to a control system of the electro-mechanical surgical device (as in claim 5, 17, and 27), as described in column 7, lines 34 to 67, wherein the coupling is configure to detachably attach the surgical instrument to the electro-mechanical surgical device as seen in Figure 2 (as in claim 6, 18, and 28), for the purpose of connecting a device to a control apparatus and power supply.

Therefore, it would have been obvious to one having ordinary skill in the art to provide Jackson et al. with a coupling and a data connector in order to transfer information from a memory unit to a control unit.

9. Claims 2, 3, 7-9, 11, 13,14,19-22, 24, 25, and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al. (5,383,874) in view of Denen et al. (5,400,267) in further view of Adams et al.(6,119,913).

The modified device of Jackson et al. discloses the invention substantially as claimed including the above discussed but does not show at least one rotatable drive

Art Unit: 3721

shaft configure to couple with a respective drive shaft of the electro mechanical surgical device.

However, Adams et al. teaches the use of at least one rotatable drive shaft 722 configure to couple with a respective drive shaft 722' of the electro mechanical surgical device as in column 10, lines 5-30 and Figure 15 (as in claim 2, 13, and 24), a first rotatable drive shaft 722 and a second rotatable drive shaft 724, each of the drive shafts being configured to couple with a respective drive shaft 722', 724' of the electro-mechanical surgical device (as in claim 3, 14, and 25), wherein the surgical instrument includes a surgical stapler cutter instrument (as in claim 7, 19, and 29), wherein the surgical stapler instrument includes an anvil portion 48 and staple driver portion (as in claim 8, 20, and 30), a first rotatable drive shaft configured to open and close the anvil portion and a second rotatable drive shaft configured to drive the staple driver/cutter portion as in the abstract of Adams et al. (as in claim 9, 21, and 31), for the purpose of transmitting a rotation force to a surgical instrument as in column 10, lines 5-30.

Moreover, Adams also teaches at least one driven element 40 and a gear 44 arrangement configured to couple a drive shaft 22 of the electro-mechanical surgical device to the at least one driven element, the gear arrangement being configured to convert a rotation of the drive shaft to drive the at least one driven element at a torque, as inherently achieved by any gear arrangement, exemplified in Figure 2 (as in claim 11, 22 and 32)

Although Adams does not explicitly state the rotation is high-speed rotation for high torque output, it would have been obvious to one having ordinary skill in the art at

Art Unit: 3721

the time the invention was made to select high speed rotation and torque over standard or slow rotation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Therefore, it would have been obvious to one having ordinary skill in the art to provide a rotatable drive shaft in order to transfer force to a surgical instrument for operation.

10. Claim 33-41 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. (6,119,913).

With respect to claim 33, Adams et al. anticipates at least one rotatable drive shaft 22, a motor arrangement configured to rotate the at least one rotatable drive shaft from a proximal end thereof as described in column 6, line 35, a first gear arrangement disposed at a distal end of the rotatable drive shaft 44, and at least one element 40 driven by the gear arrangement, wherein the gear arrangement is configured to convert a rotation of the rotatable drive shaft to drive the at least one driven element at a torque as discussed in column 7, line 13, and wherein the first gear arrangement includes at least one of a spur gear arrangement, a planetary gear arrangement, a harmonic gear arrangement, cycloidal drive arrangement, and an epicyclic gear arrangement as see in Figure 15 (as in claim 43).

Adams also show the surgical device further comprising a surgical attachment 718 attachable to the distal end of the rotatable drive shaft, the surgical attachment including the at least one element as best seen in Figure 15 (as in claim 34), wherein



Art Unit: 3721

the first gear arrangement is disposed in the surgical attachment as in Figure 15 (as in claim 35), wherein the surgical attachment includes a circular surgical stapler attachment as seen in Figure 15A and 15 9 (as in claim 36), wherein the at least one element includes at least one of an anvil 720 of the circular surgical stapler attachment and a staple driver 38 of the circular surgical stapler attachment in the embodiments of Figure 15 and 5 (as in claim 37), wherein the at least one rotatable drive shaft includes a first rotatable drive shaft 722 and a second rotatable drive shaft 724 as described in column 10, line 24, the at least one element including a first element driven by the first rotatable drive shaft and a second element driven by the second rotatable drive shaft seen in Figure 15, the gear arrangement including a first gear system configured to convert rotation of the first rotatable drive shaft to drive the first driven element at a torque and a second gear system configured to convert a rotation of the second rotatable drive shaft to drive the second driven element at a torque (as in claim 38).

Although Adams does not explicitly state the rotation is high-speed rotation for high torque output, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select high speed rotation and torque over standard or slow rotation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Adams teaches wherein the motor arrangement includes a first motor configured to rotate the first rotatable drive shaft and a second motor configured to rotate the second rotatable drive shaft in column 6, lines 34-36, where items 25 and 27 may be

Art Unit: 3721

electric motors (as in claim 39), further comprising a surgical attachment attachable to the distal end of the first and second rotatable drive shafts, the surgical attachment including the first and second elements as seen in Figure 15 (as in claim 40), wherein the first element includes an anvil and second element includes a staple driver (as in claim 41).

11. Claims 42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. (6,119,913) in view of Hooven (5,433,721).

The modified device of Adams et al. discloses the invention substantially as claimed including a first gear arrangement including at least one of a spur gear arrangement, a planetary gear arrangement, a harmonic gear arrangement, cycloidal drive arrangement, and an epicyclic gear arrangement but does not specifically teach a second gear arrangement disposed between the motor arrangement and the at least one rotatable drive shaft, the second gear arrangement configured to convert a high torque transmitted by the motor arrangement to rotate the at least one rotatable drive shaft at the high speed.

However, Hooven teaches the use of a second gear arrangement disposed between the motor arrangement and the at least one rotatable drive shaft, the second gear arrangement configured to convert a high torque transmitted by the motor arrangement to rotate the at least one rotatable drive shaft at the high speed (as in claim 42), a second gear arrangement including at least one of a spur gear arrangement, a planetary gear arrangement, a harmonic gear arrangement, cycloidal

drive arrangement, and an epicyclic gear arrangement arrangement (as in claim 44), for the purposes of reducing torque as in column 8, line 46 Figure 3.

Therefore, it would have been obvious to one having ordinary skill in the art to provide gear reductions for various operations.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are Panescu et al., and Goldberger et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis B Tran whose telephone number is 703-305-0611. The examiner can normally be reached on 8AM-6PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I Rada can be reached on 703-308-2187. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3579 for regular communications and 703-305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.



Rinaldi I. Rada  
Supervisory Patent Examiner  
Group 3700

lbt  
December 5, 2002